Nanoparticle Size Analyzer FM-NSA-A100

Description :

Nanoparticle Size Analyzer FM-NSA-A100 is a laser particle size analyzer that uses dynamic light scattering principle for the analysis of nanoparticles. It determines size distribution in range of 1 nm to 10000 nm by photon correlation spectroscopy (PCS) and also measures zeta potential and molecular weight. Change in angle due to dynamic light scattering measures particle diameter and diffusion coefficient according to Stokes-Einstein equation. Digital correlator performs collection of dynamic light scattering intensity, auto correlative real time calculation with data processing speed up to 162M which effectively reflect dynamic scattering light information of different size of particles.

Specifications :

Standard	ISO 13321:1996 and ISO 22412:2008
Measure range	1 nm to 10000 nm
Concentration range	0.1 mg / ml to 100 mg / ml
Accuracy	< 1 % (Average particle size of standard sample)
Repeatability	< 1 % (Average particle size of standard sample)
Light source	Semiconductor laser λ = 532 nm lifetime > 25000 hour
Detector	Imported HAMAMATSU photomultiplier
Scattering angle	90°
Sample volume	4 ml
Sample cuvette dimension (L × W)	45 mm × 1 mm
Temperature control	5 to 40 ℃ (temperature controller within 0.1℃
Test speed	< 5 min

External dimension (L × W × H)	600 × 375 × 240 mm
Gross weight	12 kg
Operation system	Win XP/ Win 7
Analysis	Average particle diameter, particle distribution, photon counting rate etc.
Digital correlator	Auto correlation channel: 256 Baseline channel: 4 Unit delay time: 100 ns to 10 ms

Features :

- Equipped with dynamic light scattering principle and photon correlation spectrum technology
- High resolution speed of 8 ns by digital correlator
- Detector delivers high sensitivity and noise signal ratio
- Imported HAMAMATSU photo-multiplier ensures good accuracy
- Speedy data collection and calculation
- Stable light system
- Constant temperature control system
- Output parameter: particle size distribution (D100/D97/D50/D10, S/V)

Applications:

Used in pharmaceutical and cosmetics industry, agricultural and pesticide industry, food and beverages industry, cement, ceramic, glass, textile, chemical industry, geological analysis, pigment, oil exploration.

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